THE VETERINARY RECORD

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FOUNDED BY WILLIAM HUNTING, F.R.C.V.S.

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THE MEMBERSHIP OF THE NATIONAL.

Next month the "National" will meet in London to decide upon a policy, and it is to be hoped that in so doing due attention will be given to the all-important question of how best to increase the membership of the Association and the local branches. To those who look ahead, the latter is the more serious problem; for the "National" can never become the force for good that we hope to make it without a considerable augmentation of the membership.

It is well to face this fact at once, with the further unpleasant truth that to effect such an augmentation is likely to be an undertaking of not a little difficulty.

The chief difficulty is that the men whom it is desired to reach are in most cases so inaccessible. They belong to no societies; and not a few of them, if they read the professional journals at all, only do so very casually. Practically, they are outside all professional influences except those of their neighbouring fellow practitioners, who in many districts are very few, and whom they do not always regard as friends. The cares of practice tend to isolate a man from the wider interests of the profession; family and social influences generally work in the same direction; and in too many cases the isolation becomes complete.

Often these men are worthy and hard working practitioners; indeed their immersion in their own practices is one of the commonest causes of their lack of interest in the profession outside. We all know that the man with the largest practice and the best reputation in his own district is often also the one who takes least interest in the profession as a whole. How to get such men into the fold of the societies is a puzzle; and to induce them even to think over the question of joining will not be easy. A circular may probably be issued, and would doubtless do good; but many of the recipients would not trouble to read it through, and, of those who did, few would read with sympathetic comprehension. A man does not readily break the traditions of a life-time for an object which he has never learned to appreciate.

The ideal line of action would be to organise a systematic personal canvass of every veterinarian in the Kingdom now outside the Societies. This might be done verbally or by a private letter; the essential point is that each man should be directly approached by at least one other not personally a stranger to him—an appeal from a friend would have more weight than an official circular. Troublesome though this process would be, it could be managed by the officers of local Societies with the assistance of their members; but here we come up against another difficulty. How many of the present members of any local Society take sufficient interest in it to seem promising proselytising agents? Probably every secretary could answer this question by pointing to some whose membership is no more than nominal, and a larger number who, though not so indifferent as these, are still anything but active and zealous workers for the Society. In most Societies comparatively few members support it nearly so energetically as they ought, and yet these are the men who would often be the most favourably situated for carrying out such propaganda work.

The problem may therefore be stated to be to transform the many luke-warm members of the Societies into proselytisers, and to induce them to draw in the men outside. The plan will be difficult to put into practice; but, if a large proportion of the members were to take it up whole-heartedly, it is certain that much good could speedily be done. Any and every plan likely to increase membership should be adopted, and this one certainly promises to be effective.

We need always to remember how greatly the success of any programme adopted by the "National" depends upon its membership. We hear much talk about organising a campaign to press veterinary claims upon the public, but at present this is something like expecting an effect without a cause.

ANTHRAX.

The following incident occurred sometime ago in my district and may be of interest in illustrating how careful one ought to be in handling carcases of animals dying suddenly.

I was asked by a small farmer, whose entire live stock comprised two cows and a dog, to examine the carcase of one of the cows which died the previous day. The owner, not realising the gravity of the situation, attempted to dress the carcase and use it for human consumption. Fortunately, however, a sympathetic neighbour appeared on the scene who advised his friend to have the carcase examined before proceeding any further. This was done, and although there was no delay in going there, I found on my arrival that the second cow and also the unfortunate dog had succumbed.

From the appearance of the carcase I at once dissuaded the owner from using the flesh for human food. He informed me that he had bled the first cow, and that the second got access to this blood and swallowed some of it. The dog also scented the blood and sampled it.

The disastrous results soon followed and the unfortunate farmer was thus deprived of all his animals.

Conon Bridge, Ross-shire. G. GAIR, M.R.C.V.S.

HELMINTHIASES OF STOMACH AND INTESTINES OF STOCK IN SOUTH AFRICA.

The following are brief notes relative to helminthiases of stomach and intestines of stock.

Horses.

History.—Of nine horses, the property of one owner, five died.

Symptoms in all were identical—slight colic, obstinate constipation, and as disease progressed horse unable to get up; but when lifted up was able to stand until the last stages. Duration of sickness—about ten days.

Diagnosis of first case was sand impaction of colon, and on post-mortem a few handfuls of sand were found. Examination of other organs was not made.

Post-mortem on next two horses showed little or no sand in intestines, but thousands of small worms in a layer of amber-tinged gelatinous mucus adherent to mucosa of stomach. In one examination made immediately after death, the parasites were first observed by their movements, although not visible until mucus was smeared on glass. Carcases in fair condition.

This parasite may be a species of spiroptera.

Cattle.

During summer of 1918-19 a farmer lost fourteen head of cattle, namely 12 cows, 1 heifer and 1 young ox. The disease was reported more prevalent amongst cows not long calved. Cows of all ages were affected.

Symptoms—First noticed to be stiff in legs, obstinate constipation, fæces dark in colour, and as disease progressed cattle lost condition, lay down unable to rise, and died within one to three weeks from first noticed sick.

Treatment—As microscopic examination of blood and gland smears from three sick cows were negative, vermifuges and nourishing food were prescribed. Four cows apparently recovered slowly.

Post-mortem on one cow destroyed when unable to rise. Carcase in poor condition, about ten ounces of blood-tinged fluid in abdominal cavity, liver appeared darker and more friable than normal, mucosa of pyloric end of abomasum appeared roughened, and in scrapings of mucus from that part small parasites were easily demonstrated, mucosa of duodenum showed mucus slightly blood-tinged, in which also small parasites were easily demonstrated.

According to Dr. Veglia's identification of similar parasites observed in Merino sheep and Angora goats during 1917, these parasites may be *Tricostrongylus extenuatus* and *Tricostrongylus instabilis*. The incidence and symptoms somewhat resembles the South African disease, lamziekte.

Sheep and Angora Goats.

On several post-mortems on sheep, carcases have been in good condition confirming the history that these sheep had only been sick a few days. In such cases abomasum showed a very heavy infection of *strongylus contortus*.

Similarly, on post-mortem of some angora goats, carcases have been in good condition, and only Tricostrongylus infection and lesions have been observed in abomasum, duodenum and jejunum.

The writer understands that sheep experimentally dosed with large numbers of the larvæ of strongylus contortus may die within a few days.

That may happen under favourable natural conditions, and also with parasites other than Strongylus contortus.

The diagnosis that the parasites observed in stomach of horses and abomasum and duodenum of cattle were the cause of symptoms recorded may be premature, when a satisfactory explanation of the weakness or paralysis of legs and obstinate constipation is not available.

Queenstown, South Africa, 24th July. W. A. Simson, F.R.C.V.S.

POISONING BY EATING POTATO TOPS.

It is well, I think, that cases that are in any way off the beaten track should be recorded. I have therefore thought it wise that I should place in print the following particulars regarding cattle poisoning through the eating of potato tops.

A few days ago I was summoned to attend some cattle that were ill belonging to a client. I found one cow dead, and another cow and a two-year-old bull nearly lifeless, and four other cattle very seriously affected. I was informed that the cattle had on a previous Thursday (which day was very wet) gained access for a short time to a potato field where the potato tops were very green. The whole of these cattle were in the field, other two that usually went with them did not get into the field, and not having partaken of the potato tops were not affected, and these two were not ailing when I first saw them on the Saturday, nearly two days after the cattle had partaken of the potato tops.

The cow that died first was taken ill twenty-four hours after gaining access to the potato field. The next morning the owner found her somewhat dull and lifeless, but he did not consider seriously ill. In the evening he found her either unable or unwilling to rise. He then administered three gills of linseed oil, but she died about an hour afterwards.

Next morning he found that another cow and the bull were both ill. The symptoms manifested by those cattle that were least affected were as follows: they appeared dull and listless, the nose dry, and saliva dropping from the mouth. The bowels were not distended with gas, nor did they appear even to be full. The tips of the ears were cold, and the internal temperature registered 102° F. They were inclined to scour, and small "blebs" or balls of white mucus were noticed passing with the dung. The breathing of the animals was normal. The symptoms noticed in the cow and bull that died were somewhat similar. Both of them however were on the ground and appeared too weak to rise. There were tremors of the muscles, depression of the head, cold extremities, dilation of the pupil, dry nose, shallow but not quickened breathing, tempera-

ture of 102° F. Here again there was not any distension of the abdomen with gas, nor did the animals moan or grunt, but appeared to be in a somewhat comatose condition.

On again visiting the farm on Sunday morning I found the second cow and bull dead. The post mortem revealed a pealing off of the mucous coat of the rumen and reticulum with a highly congested surface beneath. The abomasum or fourth stomach was only slightly congested on its inner surface. The bowels did not appear to be affected. The ingesta consisted of grass, portions of potato leaves intermixed with strips of the mucous membrane. The potato leaves were in such a condition as to be unrecognisable, and if the observer had been unaware that the cattle had been eating potato tops, the leaves could scarcely have been identified. There were no potatoes or portions of them observable in the rumen.

The treatment adopted consisted of linseed oil, carbonate of ammonia and nux vomica. This treatment, which I have used with success in yew poisoning, did not give the same satisfactory results in the advanced cases. The toxic symptoms were longer in shewing themselves in potato-top poisoning than in yew poisoning. The cattle that were least affected seem on a fair way to recovery with the above medicinal treatment, and by the giving of linseed tea and milk only, as a diet, which is horned into them. This is my first experience in a practice of nearly thirty years that I have encountered poisoning by potato tops, in fact I cannot say that I ever observed cattle eating them before. This year with its droughty summer and scarcity of grass, it is difficult to confine cattle to their pastures, and consequeutly they are more inclined to stray in search of green food.

WM. TOPPIN HEWETSON.

ABSTRACTS FROM FOREIGN JOURNALS.

ANTEPARTUM PARAPLEGIA IN A SOW.

C. Martinez Herrera has recorded the following case on account of its novelty in the species of animal concerned. The subject was a sow a year-and a-half old, large and in excellent condition, about three months advanced in first pregnancy. The animal was being allowed out on the pasture in the daytime, and housed at night; and one evening, on being brought in, she was noticed to have little appetite for the evening meal. The next morning she went out as usual, but was found a few hours later to be showing symptoms of paresis. Upon the least movement she fell upon her hind quarters, and was only got home with great difficulty.

Towards evening on the following day Herrera saw her, and found her in the same position she had taken up on her return to the sty the day before, and refusing food and drink. She was lying upon the left side, with the four extremities rigid. The respirations were accelerated, and there was loss of sensibility, but fever was absent. With the aid of two men Herrera tried hard to get her up, but found her unable to stand; she fell helplessly back upon her hind-quarters, and failed to respond to further stimulation. She had neither urinated nor defecated during the last twenty four hours.

Herrera gave a guarded prognosis, and confined his treatment for that day to vigorous and repeated rubbing of turpentine along the spine, and enemas of water at 40° C. (circ. 104° F.) every two hours. The next day, he found the sow in the same attitude as before. Food of all sorts was still being refused, and the respirations continued accelerated. A fresh attempt to get the animal on her feet proved unsuccessful. No improvement could be recognised. Herrera prescribed ·015 gramme of strychnine sulphate in 15 c.c. of distilled water for three hypodermic injections, and continued the enemas and turpentine frictions.

The following day some improvement appeared; at different times the sow ate altogether two kilogrammes (=circ. 4·4 lb) of cooked potatoes and drank water with avidity; managed to stand for some instants, and under stimulation to take two or three very rapid steps before falling. The next day she rose of her own accord and went into the yard to drink from a trough—manifestly improved, though walking very uncertainly. In the following days the appetite improved, and the paralysis diminished very gradually until about a month after the onset of the illness, when she gave birth to eight large handsome piglets. From that day a marked improvement set in; and nine days after parturition, the sow had recovered her accustomed appetite, and her gait was perfect.—(*Revista de Hygiene y Sanidad Pecuarias*)

(This is the first case of antepartum paraplegia in the sow I have seen recorded. It will be noticed that in symptoms and course it shows well marked differences from the much better known antepartum paraplegia of the cow; and it would be interesting to know if any English practitioners have seen the condition in sows—*Trans.*)

OSSEOUS MELANOSIS.

Petit described this condition to the Central Society of Veterinary Medicine in 1914. If, in post-mortem examinations, the skeletal system is well examined, it is evident that osseous melanosis, microscopically recognisable, should not be considered as a rarity. The blood transports into the medulla, as into all other parts, not only melanin, but also sarcomatous cells which have become separated from their original seat, and which proliferate and develop in the ordinary fashion, but have less destructive tendencies towards the bony tissues than those shown by ordinary metastatic sarcomatous growths. Osseous melanosis therefore does not consist exclusively in a pigmentary infiltration of the medulla, realised up to a certain point by the detention and accumulation of fine melanic granules, as might be thought from the aspect of certain parts of the lesions. The process is frequently an active one in the sense that it is united with the transportation by the blood into the spongy cavities of the bone of the neoplasmic cells themselves.

Vertebral Melanosis. In the horse, it is not rare to find the presence of voluminous sub-dorsal melanic tumours, or sub-lumbar ones, which may be recognised during life by rectal exploration. These tumours frequently spread into the rachidian canal, which they fill to a certain extent, englobing the nervous roots and more or less repulsing the dura mater, which is not easily penetrated. This does, however, occur; and then the spinal cord itself is directly and dangerously englobed by the tumour. Numerous cases of paraplegia, occasioned by a lesion of this nature, have been observed in the horse.

At the same time as this propagation of the tumour into the rachidian canal, the vertebrae adjacent to the melanoma and englobed by it also become pigmented. This is not so much from contiguity of the tissues as from the deposition of either pigment or sarcomatous cells in the osseous tissue by means of the nutritive vessels.

In *costal melanosis* distinct types of invasion may be observed. Sometimes the pleura is covered with disseminated sarcomatous nodules, some small and others considerable, principally distributed opposite the intercostal spaces. These tumours may be black or grey, and are frequently conglomerated. The ribs are usually all invaded; and at certain points the pigmentary infiltration appears as clearly through the pleura as when seen in transverse section.—(*Revista de Higiene y Sanidad Veterinaria*).

W.R.C.

ANNUAL REPORT OF THE CIVIL VETERINARY DEPARTMENT, BENGAL, FOR THE YEAR, 1917-18. [Abridged.]

The permanent Superintendent Mr. (now Captain) Kerr continued to be on military duty throughout the year under report, and I remained in charge of this Department in addition to my duties as Principal of the Bengal Veterinary College. The work of touring was, therefore, performed by the Deputy Superintendent, Babu Sarat Chandra Paul, who spent 94 days on tour and inspected the important hospitals and dispensaries in this Province. He also attended a severe outbreak of anthrax in the Sundarbans and two outbreaks of glanders, one in Rangpur town and another at Kalimpong in Darjeeling, and travelled 7,387 miles by rail, 222 miles by road and 450 miles by steamer.

During the year two veterinary assistants, viz., Babu Ananga Mohan Ghose and Babu Rabindra Mohan Roy, volunteered their services to the Military Department, while one assistant, viz., Babu Khagendra Nath Ghose, returned to this Department on the completion of his term of agreement for one year. The total number of assistants who were doing military work during the year was eight.

Leaflets in Bengali dealing with the prevention and treatment of contagious diseases were as usual freely distributed to the villagers, and benefits accruing from isolation, disinfection and burial of carcasses, etc., were fully explained to them by the subordinates of this Department.

TREATMENT OF DISEASES.

There was an unusual increase in the mortality of animals from contagious diseases during the year, the total number of deaths reported being 26,486 as against 8,415 in the preceding year. The number of deaths amongst bovines rose from 8,232 to 26,208, of which 21,126 were rinderpest and 2,407 anthrax, the districts most seriously affected being Noakhali, Bakarganj, Rangpur and 24-Parganas. In these districts most of the reports of outbreak of cattle diseases in the interior were received late, and as unfortunately no precautionary measures were taken by the villagers, the contagion spread, with the result that a very large number of animals died before inoculation work could be undertaken. The mortality would have been still greater but for the excellent results obtained from preventive inoculation. The loss sustained by these four districts represents nearly 70 per cent. of the total mortality for the whole Province.

Glanders. Was confined to two districts, 27 deaths from this cause occuring as against 67 in the preceding year. The decrease was at the Sodepur Pinjrapole, where only one animal died as against 59 in the year previous. Compensation was as usual paid liberally to horse owners, and the total sum awarded to them for the compulsory slaughter of their animals amounted to Rs. 565 as against Rs. 222-8 in the preceding year. The increase in expenditure is due to the fact that larger sums had to be paid for the destruction of a better class of animal during the year under report.

Rinderpest. Appeared in a somewhat virulent form in several districts in Bengal. The total number of animals that died from this disease was 21,126. In the district of Noakhali, in which as many as 7,549 deaths occurred in the char lands of Sadar sub-division where cattle are generally kept loose. The magistrate with the assistance of the veterinary assistants of Sadar and Feni took all possible steps to stamp out the disease. Orders were issued by the magistrate to ferry-farmers to stop carrying the cattle to and from the non-infected area, and the panchayets, chaukidars and dafadars were instructed to help in every way possible. The veterinary inspector visited the affected localities, and helped the assistants in carrying out the preventive inoculation work.

In the district of Bakarganj the veterinary inspector of the Dacca Division assisted by a staff veterinary assistant from Calcutta and the local veterinary assistant spent about two months attempting to stay the disease by inoculating work, etc. In the Darjeeling district also there was a severe outbreak of this disease amongst hill cattle. It may be stated here that hill cattle are much more susceptible to this disease than cattle of the plains, and the mortality in this outbreak was in consequence very great.

Hæmorrhagic Septicæmia. Was responsible for the loss of 2,407 animals as against 1,957 in the previous year. The outbreak was very severe in the Mymensingh district, where 600 animals died. One thousand two hundred and sixty head of cattle were inoculated against the disease in this district.

Anthrax. 1883 animals were reported to have died as against 65 in the preceding year. In one severe outbreak 1000 animals are said to have died and in another 414. In the Sundarbans where the Deputy Superintendent was deputed to work in connection with the first-mentioned outbreak, he noticed that carcases were either thrown into the river or allowed to be devoured by the vultures. This resulted in the spread of the infection in the surrounding localities. The importance of cremation and the deep burial of the carcases as instructed by the officers of this Department was recognised by Sir Daniel Hamilton, and he issued prompt orders to that effect to his raiyats at Gosaba, but unfortunately in the neighbourhood abad of Basanti little or no attention was paid to this instruction.

Preventive inoculation. There were altogether 440 outbreaks in which inoculation was undertaken, as against 225 outbreaks in the previous year. The details

of inoculation are given below, in addition 5518 animals were inoculated by the College staff in Calcutta and its suburbs.

	1916-17	1917-18
Rinderpest	20498	53124
Hæmorrhagic Septicæmia	9070	9300
Anthrax	150	982
	29718	63406

The death rate amongst the inoculated was very small, being 237 in all or 0·3 per cent.

A sum of Rs. 22743-2 was paid during the year to the Imperial Bacteriologist at Muktesar on account of cost of serum. Of this amount a sum of Rs. 21875 represents the cost of anti-rinderpest serum, while the balance of Rs. 865-2, represents the cost of other sera and vaccines the price of which has been ordered by Government to be realised from the local bodies with effect from 1st September last.

Treatment of diseases on tour. During the year there were 61 itinerant Veterinary Assistants and 13 stationary Veterinary Assistants in charge of dispensaries who toured in the interior either at fixed period or at the time of outbreaks. These officers visited 11520 villages as against 10047 in the previous year, and treated 67333 cases as against 57462. The increase in the number of cases treated proves that the usefulness of this Department is being increasingly appreciated by the public.

Hospitals and Dispensaries. Two new out-door dispensaries in the district of Bakarganj were opened in August and December respectively, thus bringing the total number to 27. The site selected for a third dispensary at Patuakhali in the same District was also acquired in the course of this year, and construction of the building is in progress. [Other dispensaries and a hospital are mentioned as in progress.]

The total number of in and out-patients treated during the year was 34889 as against 37785 in the previous year. The decrease in the number of cases was due to the occurrence of less number of foot-and-mouth cases, and in some instances to the assistants having to be granted leave although no substitutes were available due to our depleted staff.

Breeding operations. As stated in the previous years, continued efforts are being made by the officers of this Department to arouse interest in cattle-breeding amongst the people, and many requests have been made for good young bulls.

During the year one good Montogomery bull was presented to the Veterinary Dispensary at Rangpur by Babu Dukhaja Mohan Chaudhuri, a local zamindar. There were 68 bulls available on March 31st.

Fairs and Shows were attended either by the local Veterinary Assistants or by the Divisional Veterinary Inspectors, who delivered lectures on the prevention of cattle diseases and preservation of cattle, and helped in the judging of animals for the distribution of prizes.

Lantern slides were also displayed at the fairs held at Chinsurah, Suri, Feni, and Faridpur.

The strength of the subordinate veterinary staff of Bengal during the year 1917-18 was :—Deputy Superintendent; Veterinary Inspectors, 6; Veterinary Assistants, 97.

During the year one veterinary assistant died, one was discharged, and eight were on military duty. Four new posts for which sanction had been received previously were also opened during the year. Eleven new graduates were received from the College, and they were absorbed in filling up old and new vacancies. Sodepur Pinjrapole entertained one more veterinary assistant during the year.

Deputy Superintendent Babu Sarat Chandra Paul has given me much assistance in inspection work.

Veterinary Inspectors have worked satisfactorily. Babu Nripendra Nath Majumdar, Veterinary Inspector in charge of the Presidency Division, was on combined leave for about eight months, during which period Staff Veterinary Assistant Babu Rabindra Nath Bose acted in his place.

Of the four staff veterinary assistants sanctioned for this department only two were employed at the close of the year for want of men. Of these two one was on deputation for the most part of the year. The remaining staff veterinary assistant, Babu Bashupati Nath Mukerjee, performed his duties satisfactorily.

With few exceptions the work of the veterinary assistants is generally good. One veterinary assistant was suspended for misconduct.

Cattle poisoning. This crime was rife as usual. Veterinary assistants performed post-mortem examinations on several cases sent up by the police, and viscera were sent to the Chemical Examiner to the Government of Bengal. Offenders were punished in cases where arsenic was detected.

Cruelty to animals. Endeavours were made by the veterinary assistants to prevent cruelty, and several cases were sent up for prosecution under the Act.

Office establishment. Owing to the death during the year of the second clerk and the transfer of the third clerk to Dacca in the office of the Director of Agriculture, Bengal, the work in the office was somewhat difficult for a time. The head clerk had extra work and responsibility in consequence, and I am pleased to be able to say that his efforts in keeping the work up to date were very satisfactory.

A. Smith, Lt.-Col.,
Calcutta. Offg. Supt. Civil Vety. Dept., Bengal.

BENGAL VETERINARY COLLEGE.

Annual Report, 1917–18. [Abridged.]

I held charge of the Bengal Veterinary College, the Epizootic Diseases of Animals Department in Calcutta and its vicinity, and the Raymond Research Laboratory throughout the year. I also held, in addition to the office of the Principal, charge of the Civil Veterinary Department, Bengal, in the absence of the Superintendent of that Department on deputation to military duty. I attended by order of the Government the tenth meeting of the Board of Agriculture in India held at Poona from 10th to 15th December, 1917. I also acted as a member of the Examining Board of this College in March, 1918.

Mr. Dibakar Dey, Senior Lecturer, acted as Assistant Principal throughout the year.

Veterinary Instruction.

Class A. Sixty-three students inclusive of seven plucked students of last year formed this class at the beginning of the session, two of whom were subsequently removed (one for continued absence and the other for bad progress) and two were arrested by the police as political offenders.

Class B. Was composed of 52 students—46 promoted from Class A and 6 from last year. Two students subsequently left of their own accord, one was advised to withdraw on account of ill-health and one joined the Bengali Double Company.

Class C. Was composed of 50 students—40 promoted from class B and 10 from last year.

Thus at the beginning of the session, the total number of students in the three classes was 165 and at the end of the session 157.

The recruitment of students shows a slight improvement over the previous year. At the beginning of the session, there were 165 students against 155 last year

and at the close of it 157 against 148 last year. Thirty three of these students were Matriculates.

The examinations began on the 14th and terminated on the 25th March. The Examining Board was composed of Mr. D. A. D. Aitchison, Principal, Madras Vet. Coll., as President, and Mr. D. Quinlan, Supt., C.V. Dept., Bihar and Orissa, Mr. W. Harris, Supt., C.V. Dept., Assam, and myself as members.

Fifty-nine students appeared at the examination from class A and 41 passed; 48 from class B and 35 passed; and 50 from class C and 31 passed. The percentage of passes in the three classes was 69·49, 72·91 and 62, respectively.

The Board of Examiners remark as follows:—

"We consider the results are satisfactory taking into consideration the circumstances which have existed throughout the year. It is very desirable that the teaching staff should be strengthened as soon as possible by the addition of European teachers."

Out of the 159 students remaining at the end of the session 24 held Government stipends from Bengal, 3 from Bihar and Orissa, 21 from Assam, 9 from United Provinces, 2 from Burma, 70 from District and Local Boards, 1 from a Municipality, 3 from Raj Estates, while 1 held the Shew Bux Bogla Scholarship.

All students (with the exception of one who lived in a separate room within the College premises) lived in the hostels and their general health was good. The medical officer attended regularly.

All students went through the course of equitation and a riding competition was held in which six students secured prizes.

Three transport drivers from the 25th Mule Corps, Maymyo, and a private individual from Garhwal were trained as Veterinary Dressers.

Both the Library and the Museum were profitably used by the teaching staff and the students. Several new books and journals were added to the Library during the year.

During the year under report, 2,366 patients were treated and 736 operations performed. Out of 6,294 prosecutions under the Prevention of Cruelty to Animals Act, 295 animals were sent to the College Infirmary by the Trying magistrates. These patients afforded ample opportunities for practical instruction to the students.

Fodder Crops. Lucerne, Guinea grass, paspalam, carrot, oats and dub were produced in a part of the annexé compound. These crops were, on the one hand, of great educational value to the students, and on the other, afforded valuable food to the patients and considerably reduced the feeding charges.

The College ambulances were in frequent requisition.

Breeding Operations. Ten stud bulls were maintained at this College.

General Remarks. The additional Imperial Officer sanctioned for the College in 1914 has not yet been available, though the College stands in great need of the services of such an officer.

The teaching staff was short throughout the year, of one of its members whose duties had to be distributed among the other members of the College in addition to their own. Moreover, one teacher has not enjoyed the best of health and another has had serious illness in his family, so that, with an already depleted staff, under the circumstances they must all have given of their best, and are to be congratulated on the results of the examinations.

Mr. N. L. Mitra, Chief Glanders Inspector, was appointed 3rd grade Deputy Superintendent on 1st July. Mr. D. Dey, 2nd grade Deputy Superintendent, was promoted to 1st grade on the 1st October and Mr. S. S. Ahmed was promoted to the 2nd grade in succession. The place of the latter has been recommended to Government to be filled in July next by promoting the Chief Glanders Inspector, Babu G. N. Chatterjee.

Mr. R. V. Pillai, Laboratory Assistant, was temporarily appointed Veterinary Supervisor on military duty to bring mules from China to India from 27th September to the end of the year. From reports received his work was most satisfactory.

The work of the staff has been most satisfactory.

A. SMITH, Lt.-Col.
Principal, Bengal Veterinary College

DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.		Rabies. Cases Confrmd Dogs	Rabies. Cases Confrmd Other Anmls	Anthrax Out-breaks (a)	Anthrax Animals.	Foot-and-Mouth Disease. Out-breaks (a)	Foot-and-Mouth Disease. Animals.	Glanders.† Out-breaks (b)	Glanders.† Animals.	Parasitic Mange. Out-breaks (b)	Parasitic Mange. Animals.	Sheep Scab. (b)	Swine Fever. Out-breaks (a)	Swine Fever. Slaughtered. *
GT. BRITAIN. Week ended	Aug. 30	3		6	6					49	88	2	36	20
Corresponding week in	1918			7	8					40	72	3	14	4
	1917			7	7					25	37		28	15
	1916			7	8			1	1	13	27	2	63	32
Total for 35 weeks, 1919		139	3	136	174	25	1555	20	47	4058	8195	220	1542	687
Corresponding period in	1918			176	202			23	65	3449	6532	252	995	401
	1917			329	377			18	32	1872	3627	395	1713	747
	1916			373	443	1	24	36	91	1692	3816	184	3296	8621

(a) Confirmed. (b) Reported by Local Authorities. † Countiesaffected, animals attacked :— Excluding outbreaks in army horses.

Board of Agriculture and Fisheries, Sept. 2, 1919

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection

DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders† (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Out-breaks	Slaugh-tered.
IRELAND. Week ended **Aug. 2**	...	...	...	...			Outbreaks 5		6	...	3
Corresponding Week in 1918 ...	...	...	...	...	...	...	2		6	1	6
Corresponding Week in 1917 ...	...	...	...	...	...	...	1		4	4	6
Corresponding Week in 1916 ...	...	...	...	...	...	...	1		6	5	45
Total for 31 weeks, 1919 ...	...	...	...	...	1	1	117		164	20	66
Corresponding period in 1918 ...	2	2	...	...	...	...	83		188	15	54
Corresponding period in 1917 ...	3	5	...	...	1	1	83		243	160	986
Corresponding period in 1916 ...	3	7	...	...	...	...	44		254	199	1160

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, Aug. 2, 1919

IRELAND. Week ended **Aug. 9**	...	...	...	...	...	...	Outbreaks 2		2	...	...
Corresponding Week in 1918 ...	...	...	...	...	...	...	3		5	2	3
Corresponding Week in 1917 ...	...	...	...	...	...	...	1		5	5	16
Corresponding Week in 1916 ...	...	...	...	...	...	...	1		3	4	25
Total for 32 weeks, 1919	...	...	...	...	1	1	119		165	20	66
Corresponding period in 1918 ...	2	2	...	...	...	...	86		193	17	57
Corresponding period in 1917 ...	3	5	...	...	1	1	34		248	165	1002
Corresponding period in 1916 ...	3	7	...	...	...	...	45		257	203	1185

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Aug. 11, 1919

NOTE.—The figures for the Current Year are approximate only. * As diseased or Exposed to Infection

UNQUALIFIED ASSISTANTS.

Sir,—The current *Record* contains two letters objecting to the Council's proposal to abolish unqualified assistants. Naturally both are anonymous; for both writers keep unqualified assistants themselves, and of course neither is anxious to put the Council on his track. There is a notable difference in their apparent comprehension of the question. One clearly sees that, if the proposed bye-law is passed, he will have to get rid of his unqualified assistant. The other says that he "could not do so," and "would rather incur the displeasure of the Royal College," without apparently realising that persistence in such a course would end in becoming unqualified himself. I think it is time for members to understand that this bye-law is seriously meant, and that it will inevitably be passed and *enforced* unless the Council have evidence that there is a very considerable amount of opinion within the profession against it. No such evidence has been forthcoming yet; and certainly it will not be supplied by a few anonymous letters from men with whom the bye-law will interfere.

Let these men try to regard the subject from some other points of view than merely that of their own convenience. To begin with, let them honestly face the question of what manner of men, broadly speaking, unqualified assistants are. Everybody knows that not a few of them are absolutely untrained empirics—smart ex-grooms and the like—and that those who have had any college training at all, in the great majority of cases, have failed to qualify through faults of their own. This is surely worthy of some consideration; and there are other points much more important. How on earth can your correspondents claim that their own professional qualifications render them more reliable than their unqualified *rivals*, while they themselves do half their work or more by means of equally unqualified *assistants*? Further, take this aspect of the question as it affects, not individual practitioners, but the profession as a whole. Is it logical for a self-governing profession to assert that its members are the only men fit to treat animal diseases, if it allows the said members to employ non-members to do it for them? Of course it is hopelessly illogical; and when we hear these same superior qualified members maintaining that unqualified assistants are better than qualified ones, the thing becomes positively grotesque. The employment of unqualified assistants is not in accord with our professional pretensions, and it is high time to stop it. *It will be stopped;* for a few such feeble wails as those of last week will not avert the prohibitive bye-law. Much could be written in justification of that bye-law; but to write it would be like flogging a dead horse. The vast majority of the profession, I think, already recognise that we have tolerated unqualified assistants too long; and the sooner they are exterminated the better.—Yours truly,

"PURIST"

Sir,—As a junior member of the profession, may I be permitted to reply to the letter by "Farmer's son now V.S." in your issue of August 30th. He states that if the bye-law is passed into effect, "many of we busy country practitioners will be hard hit to get our work done," and that he has tried "several qualified men and all were useless." While admitting that younger members do not possess the experience of their elders, it would be interesting to know what degree of experience he expects to find in them. (I presume that as Rome was not built in a day, neither did "Farmer's son"

gain his experience in a day). Surely it is the duty of the older practitioner to lend a helping hand to the young member, and to encourage him, while the latter can tell the elder man of newer views and methods; to their mutual advantage. It is more than a little disheartening to a newly qualified member to find that the older practitioner has no use for his services, and prefers to employ an unqualified assistant. If this is a prevailing view in the profession, then one has simply been wasting time and money in preparing to enter it.

Further, he states that it is not a question of cheap labour, although he pays a married man, with six children, £300 per annum, and a married man with no family nearly £300. If from this statement he infers that he would pay a qualified man, with a similar length of experience to his two unqualified assistants, the same remuneration, then it is time that young members became miners, or sought other fields of activity where prospects are brighter.—Yours faithfully,

"JUNIOR MEMBER."

Sir,—Like "Perplexed" and "Farmers son now V.S." I think it will be a distinct hardship for men—like myself—with agricultural practices, if the bye-law which includes the employment of unqualified assistants under the head of "covering" is passed by our Council.

I have a very good man who does all my pig castration, spaying, parturition and other work which a qualified assistant will not do.

I found when employing qualified men that nearly all applicants were recent graduates with no experience, many had never ridden a horse, and one could not drive. Those with experience and ability were—not strictly sober—or men marking time while looking out for a practice of their own, and usually stayed for a few months only.

If a bye-law were passed compelling all students to serve a pupilage before joining college, we should get a newly qualified man, able to give a ball, or at least know how to approach an animal, and not one wishing to learn the rudiments of practice.

COUNTRY COUSIN.

ARMY VETERINARY SERVICE

War Office, Aug. 28.

The names of the following have been brought to the notice of the Secretary of State for War for valuable services rendered in connection with the war, and, when applicable, an entry will be made in the records of service of officers and other ranks:—

Scottish Command. Baird, Major J. A. (T.F. Res.); Macgregor, Capt. W. (T.F.); Stratton, Lt.-Col. F. C.

Southern Command. Drabble, Capt. (T.Maj.) C. (T.F.); Germany, T.Qrmr. and Capt. E. A.; Motton, T.Capt. S. J., F.R.C.V.S.; Stacey, T.Qrmr. and Capt. G. J.

Western Command. Green, Major R. L., T.D. (T.F.); Harber, Capt. G. L. (T.F.).

Extracts from *London Gazette*

WAR OFFICE, WHITEHALL, Aug. 27.

REGULAR FORCES. ROYAL ARMY VETERINARY CORPS.

The follg. temp. Capts. relinquish their commns. on completion of service, and retain rank of Capt.:—F. J. Adams (June 25); L. S. Balls (June 9); V. L. Banks (June 4); N. Bisset (March 18); T. Bowhill (June 25); S. G. Bright (June 30); J. Brosnan (May 24); B. A. Brown (July 11); J. H. Brown (June 30); H. L. Caldwell (June 25); W. R. Cameron (June 12); H. Chagnon (July 16); F. Chalk (June 25); A. A. Comerford (May 15) A. Conisbee (April 13); E. R. Corbett (July 16); J. M. Crowe (April 9); T. Dalling (May 3); V. R. de Boissiere (May 20); W. I. Dill (June 30); T. M. Doyle (May 7); J. Dunn (July 12); J. A. Edwards (May 31); J. F. Filmer (July 4); T. A. Mc C. Finch (May 2); G. O. R. Grey (June 19); J. O. Guertin (July 16); J. E. Hanna, M.C. (June 12); T. B. Harries (June 25); L. Herbert (April 16); S. A. Hill (June 19); G. K. Hobson (July 16); J. A. A. Houde (June 25); W. S. Inglis (May 22); N. V. James (July 12); R. T. James (June 25); H. B. Kauntze (June 18); S. S. Kerr (July 16); S. H. Kesten (June 25); J. H. Laurie, M.C., (July 16); R. H. Lay (July 8); P. G. Ledger (April 21) S. Littler (May 12): W. A. Macgregor (April 29); A. MacIntosh (June 14); J. H. McManus (July 8); K. A. Miles (June 16); R. J. Milner (June 24); R. C. Moore (May 10); W. L. Morrison (July 16); B. A. Myhill (July 9); P. J. O'Brien (June 28); N. P. Olsen (June 25); F. R. Page (July 12); C. J. Peach (May 2); W. H. Power (April 30); L. P. Pugh (May 25); A. L. Purdy (June 26); D. V. Reed (July 16); A. J. S. Reynolds (May 7); H. C. Rockett (June 12); G. A. Rose (June 30); B. L. Secker (May 14); W. Sewell (April 18); C. H. Sheather, F.R.C.V.S. (May 28); M. Sparrow (May 26); S. F. Spurr (July 8); J. A. Stanford (June 25); E. S. Steiner (April 14); C. F. Thompson (July 16); F. W. Trydell (June 27); S. I. Wall (July 16); G. H. Ward (July 23); W. Waters (June 27) B. Whittam (April 19); J. E. Williams (June 12); J. L. Williams (May 7); C. E. Wolfe (July 16).

The following temp. Lts. relinquish their commns. on completion of service, and retain the rank of Lt.:—B. R. Atmore (June 25); W. L. J. Caron (June 24); C. W. Elam (June 6); C. A. Ewing (June 6); C. H. Heslop (July 9); G. E. Lay (June 25); B. I. Love (June 5); J. T. Melanson (June 25); J. L. Millar (June 30); E. S. Notting (June 25); F. H. Sanderson (June 3).

Temp. Hon. Lt. (temp. Capt.) E. G. R. Fairholme, O.B.E., relinquishes his commn. on ceasing to be empld. (Aug. 28), and is granted the rank of Capt.

S.A.V.C.—Temp. Capt. R. P. Jones relinquishes his commn. on completion of service (July 30), and retains the rank of Capt. (substituted for *Gazette* notification Oct. 17, 1917, incorrectly describing date as May 18, 1917).

S.A. GEN. LIST.—Temp. Capt. (actg. Maj.) R. F. C. Medlicott, M.C., relinquishes the actg. rank of Maj. on ceasing to commn. a Co., S.A.C.C.C. (July 30).

Aug. 28.

Col. C. E. Nuthall, C.B., C.M.G., having attained the age limit is placed on ret. pay (July 9), and is granted hon. rank of Brig.-Gen.

Capt. (temp. Maj.) A. Spreull, D.S.O. (T.F), relinquishes actg. rank of Lt.-Col. on ceasing to hold the appt. of A.D.V.S. (April 1). (Substituted for notification in *Gazette*, May 22).

Maj. and Bt. Lt.-Col. (temp. Lt.-Col.) E. Brown. D.S.O., relinquishes his temp. rank and retires on ret. pay on account of ill-health contracted on active service (Aug. 31).

Sept. 1

Capt. E. C. Doyle, D.S.O., relinquishes the temp. rank of Major on ceasing to commd. a Vet. Hosp. (April 23); Temp. Lt. K. D. Zinck to be temp. Capt. (Aug. 1).

TERRITORIAL FORCE, ROYAL ARMY VETERINARY CORPS.

Sept. 1.

Capt. (actg. Maj.) F. B. Gresham, M.C., relinquishes actg. rank of Maj. on ceasing to commd. a Vet. Hosp. (April 17) (substituted for that in *Gazette* Aug. 13).

Personal.

WOOD : DUNCAN.—On the 24th Aug., at St. Andrew's, Cardiff, Bernard Frederick, son of the late Bernard Wood, M.R.C.V.S., and Mrs. Wood, of 20, Hanover crescent, Brighton, to Mabel Vera, second daughter of Charles Duncan, Brighton.

The Supply of Drugs during the War.

Broadly speaking, veterinary surgeons are not addicted to the use of a large variety in drugs, and many present day practitioners use drugs sparingly in their ordinary work; but many also keep abreast with the times in the use of newer medicaments, and since there has been a lapse in the supply of the much vaunted, and often valueless, German preparations, it is distinctly satisfactory to learn that so much has been done to supersede the foreign manufacture, and the more so that in several cases the raw products were derived from *our own Colonies and Dependencies*. The following sentences are from a review in the pages of *The Pharmaceutical Journal* on a memorandum issued as a "White Paper"—a report on the work of the National Health Insurance Commission (England) during the war.

"It is not too much to say that the fine chemical industry has been very greatly developed and extended, and that this country is now capable of manufacturing on a large scale all the important medecinal chemicals which before the war had been practically a German monopoly. It is uncommonly creditable and gratifying to learn that the work of the Department in this connection was carried out entirely by means of a few members of the existing staff, who undertook it in addition to their ordinary duties, and also that, although the making of profit was at no time an object of the work, in the end a surplus of over £24,000 remained as one of the results of the measures taken. The Memorandum opens with a general reference to the large extent to which, before the war, this country was dependent on Germany for many medicinal chemicals, and some staple medicinal herbs, and as regards the British drug trade industry, on raw material from overseas. Coal-tar was an exception, but most of it was exported, principally to Germany, where it was employed in the manufacture of synthetics. It is pointed out, that for years before the war British manufacturers held their own in the production both for home use and for export of many essential drugs, *e.g.*, salts of bismuth and mercury, chloroform and ether, and the alkaloids morphine, codeine, strychnine, and emetine. Although medicinal herbs such as belladoona, henbane, and stramonium were extensively cultivated in this country before the war, the chief sources of supply were in Germany and Austria, where cheap labour and an organised system of collection enabled these countries to compete to the great disadvantage of our growers. Through the Royal Society arrangements were made with about forty University and College Laboratories for the preparation of diethylamine and glycochlorhydrin, these substances being converted into diethylaminoethanol, and the final synthesis into novocain was undertaken by a manufacturing firm. In this way over 350 lb. of novocain (representing over seven million ordinary doses) were produced and supplied to our Forces, to our Italian, Belgian, Serbian, and Portugese Allies, and to fifty public hospitals in the United Kingdom, and a considerable quantity was released to meet a special demand for dental use. Other important drugs or chemicals produced under this arrangement were betæucaine, dulcitol, levulose, inulin, arabinose, brilliant green, methylene blue, orthoform-new, and butyl-chloral-hydrate. The medicinal chemicals in which Germany had practically a monopoly that are now produced commercially in the United Kingdom include acetylsalicylicacid, sodium salicylate, methyl-salicylate, salol, medicinal liquid paraffin, potassium permanganate, thymol, phenacetin, novocain, salvarsan, neo-salvarsan, paraldehyde, resorcin, and lanolin. Of the four essential medicinal herbs normally growing in this country only two, viz., belladonna and henbane, require to be cultivated, and both by private enterprise, and under the direction of the Board of Agriculture the area devoted to the cultivation of these two herbs has been greatly increased during the last four years, both in Great Britain and in Ireland, and the home production is now adequate to meet home requirements. The Memorandum notes the highly satisfactory fact that as a result of the control of the drug supply during the war there was at no time anything of the nature of a drug famine. and no really important medicine was lacking for essential purposes. The Commissioners cordially acknowledged their indebtedness to the manufacturers of fine chemicals for the enterprise and resource displayed by them, the results being shown in the remarkable progress made by the British fine-chemical industry during the war, which is such that at the present time there is hardly any medicinal chemical of importance that is not being made on a large scale in this country."

The Totalisator.

Commenting on the reply given in the House of Commons on the use of the Totalisator, (V.R. Aug. 23, p. 90) *Live Stock Journal* says :—

"Had the politician taken the trouble to inquire into its history in the Colonies and in several European countries, particularly in France, he would have learned that through the operations of the *pari-mutuel*, as it is called in Europe, several institutions derive monetary benefit from the Government tax imposed upon the takings of the machines, which are fundamentally under Government control.

Were such automatic betting machines to be installed upon the racecourses of Great Britain and Ireland, we should be relieved of many undesirable elements and those who bet on courses would be ensured of a fair price about the horses they wish to back. As betting runs to-day in our rings, the public have no real chance with the bookmakers, who "pinch" their prices to such narrow limits as to render bookmaking a farce. The *pari-mutuel* would return rates of odds fair and just with the amount of money invested upon each horse in each race.

Never was there so much betting, either upon the racecourses, in the streets, or in the workshops and factories of the country as there is at the moment. Whether the institution of the *pari-mutuel* on a racecourse would tend to reduce street and office betting we do not pretend to know, but it is clear that our racecourses would be made much better by the reduction of the countless numbers of parasites who follow the Turf for what they can "sharp" their kind out of."

OBITUARY.

FREDERICK BROWN, M.R.C.V.S., Newcastle-on-Tyne.
Graduated Edin : July 1885.
Died 29th August, 1919. Age 58.

THOMAS BURRELL, M.R.C.V.S., London, W.
Graduated Lond : April, 1862.
Mr. Burrell died on Sept. 1st, Aged 76 years.

SUBSCRIPTIONS TO R.C.V.S.

The Secretary of the Royal College of Veterinary Surgeons begs to acknowledge the receipt of the following subscriptions for 1919 :—

Barron, R., Blandford	£1	1	0
Pettifer, S. H., Malmesbury	1	1	0
Temple, A., Ramsgate	1	1	0
Previously acknowledged	£944	2	10
Sept. 2nd, 1919.	£947	5	10

Thyroid Disease in Pigs.

It has been estimated that anywhere from one hundred thousand to a million pigs have been lost annually in the single State of Wisconsin from the tendency in sows to produce litters of imperfectly developed, weak, frequently dead, "hairless pigs," and the trouble is by no means restricted to that or any other section of the hog-producing regions of the country.

Hairless pigs, though of normal or slightly more than normal weight, and rarely born prematurely, have thin skins, undeveloped hoof walls, practically no vitality, they invariably die soon after birth. The degree of hairlessness may vary, and the possibility of keeping such an animal alive by means of special care increases with the amount of hair present. But two unmistakable and constant characteristics are the thick pulpy necks and the inability or disinclination of the little pigs to squeal.

The cause of the abnormality, is the enlargement and improper working of the thyroid—situated in the centre and base of the throat. Because of the amount of fat on the average brood sow, this condition is rarely noticed, although the gland is often as large as a man's fist instead of the size of a walnut, as in normal animals. It does not usually affect the general health or lessen the value as a source of meat, but it does derange the reproductive functions. The obviously enlarged necks of the pigs are due to a corresponding condition in them.

The normal thyroid gland is to supply to the blood a secretion containing iodine, which is essential to the proper development of an animal; and the result of the failure of the gland to act may be offset by supplying small amounts of this material in the food. Members of the staff of the Agricultural Experiment Station of the State of Wisconsin have found that by giving ten grams of potassium iodide per 100 pounds of feed during the entire gestation period, a sow that had previously produced a litter of hairless pigs may be enabled to produce entirely normal offspring. In such cases 25 cent's worth of the drug has been sufficient to make the difference between eight or ten dead pigs and a litter equally large each member of which represents a potential 200-pound hog worth approximately 35 dollars.

By avoiding the excessive use of feeds rich in protein, such as grains, oil meals, etc., and by providing plenty of roughage such as clover or alfalfa hay or green fodder, sows can be kept from producing this abnormal type. Approximately 25 per cent of the ration should consist of this sort of food. The fact that sows naturally obtain more of such bulky feed in summer than in winter probably causes the majority of hairless pigs to occur in spring litters.

The Hog as a Test for Bovine Tubercle.

Dr. Burton Rogers, of Chicago, Illinois, has recently drawn attention to the value of the hog as an indicator of the existence of bovine tuberculosis on a farm. Wherever pigs and cows are kept together it is found that the former greedily devour the faeces of the latter; indeed, the symbiosis is often purposely arranged in order that cowsheds may be kept clean. The tuberculosis cows swallow their sputum, and the bacilli thus pass out in their faeces, with the result that the pigs become infected. Among 40 million hogs examined by American veterinary inspectors in 1917, 3974000, or nearly 10 per cent., were found to be tuberculous. Dr. Rogers points out that if the pigs slaughtered and subsequently examined had been previously labelled with the name of the farm on which they were reared, valuable presumptive evidence of the existence of bovine tubercle and of its localisation to specific farms would have been obtained and could have been used with great advantage in a campaign to eradicate the disease from among cattle.

DISEASES OF ANIMALS ACTS 1894 TO 1914, SUMMARY OF RETURNS.

Period.	Anthrax		Foot-and-Mouth Disease.		Glanders† (including Farcy)		Parasitic Mange.		Sheep Scab.	Swine Fever.	
	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Out-breaks	Slaugh-tered.
IRELAND. Week ended **Aug. 16**	...	...	...	...			Outbreaks 1		1	2	3
Corresponding Week in 1918 ...	...	...	...	...	...	...	...		5	...	...
Corresponding Week in 1917 ...	...	...	...	...	...	...	2		5	4	29
Corresponding Week in 1916 ...	...	...	...	...	...	...	1		5	11	12
Total for 33 weeks, 1919 ...	...	...	...	...	1	1	120		167	22	69
Corresponding period in 1918 ...	2	2	...	...	...	...	86		198	17	57
Corresponding period in 1917 ...	3	5	...	...	1	1	36		253	169	1031
Corresponding period in 1916 ...	3	7	...	...	...	...	46		262	914	1197

Department of Agriculture and Technical Instruction for Ireland. (Veterinary Branch), Dublin, Aug. 18, 1919

IRELAND. Week ended **Aug. 23**	...	...	...	...	...	...	Outbreaks 3		4	2	5
Corresponding Week in 1919 ...	...	...	...	...	...	...	1		4	...	...
Corresponding Week in 1917 ...	...	...	...	...	...	...	1		8	5	15
Corresponding Week in 1916 ...	...	...	...	...	...	...	1		11	5	36
Total for 34 weeks, 1919	...	...	...	...	1	1	123		171	24	74
Corresponding period in 1918 ...	2	2	...	...	...	...	87		202	17	57
Corresponding period in 1917 ...	3	5	...	...	1	1	37		261	174	1046
Corresponding period in 1916 ...	3	7	...	...	...	...	47		273	219	1233

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, Aug. 25, 1919

NOTE.—The figures for the Current Year are approximate only. * As diseased or Exposed to Infection